DOCUMENT RESUME

ED 142 680 UD 017 230

AUTHOR Wohl, Seth F.
TITLE Program for Institutionalized Children.
INSTITUTION New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
PUB DATE 76
NOTE 70p.; N.Y.C. Bd. of Ed. Function No. 09-69636-79

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS Blacks; *Delinquents; Elementary Secondary Education; *Institutionalized Persons; Low Income Groups; Program Descriptions; Program Evaluation; Puerto Ricans; *Remedial Mathematics; *Remedial Programs; *Remedial Reading
IDENTIFIERS *Elementary Secondary Education Act Title I; *New York (New York)

ABSTRACT

The Program for Institutionalized Children provided a supplementary individualized reading and/or mathematics remedial program, utilizing a diagnostic-prescriptive approach with the Croft Reading and Base Mathematics materials. Achievement was measured by means of criterion referenced testing procedures. Targeted pupils were all Title I eligible and numbered over 2,000. They were identified as neglected or delinquent children, and were several years deficient in reading and/or mathematics skills. The service provided by the program was limited to a diagnostic-prescriptive approach to reading and mathematics remediation. It was conducted as an after-school supplementary service, by a corps of travelling ("itinerant") Title I funded teachers. Instruction took place two or three days per week in two or four hour blocks of time. Virtually 100% of the population in the institutionalized setting were from minority groups in New York City; mostly black and Puerto Rican, and from low socioeconomic status families and neighborhoods. Generally all students showed extensive retardation in reading and/or mathematics. Evaluation results indicate that the component of mastery of two or more instructional objectives was attained in mathematics but not in reading for selected objectives only. A high degree of pupil post-instruction mastery of selected objectives in reading and in mathematics was evidenced. These positive data attest to the effectiveness of the remedial instructional components. (Author/AM)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED142680

Evaluation Report

Title I: B/E
Function # 09-69636-79

PROGRAM FOR INSTITUTIONALIZED CHILDREN

School Year 1975-1976

Prepared by

Seth F. Wohl

and

O.E.E. Staff

ED117230

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

An evaluation of a New York City School District educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed for the Board of Education of the City of New York for the 1975-76 school year

BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF EDUCATIONAL EVALUATION
110 LIVINGSTON STREET, BROOKLYN, N. Y. 11201

ANTHONY J. POLLMENI, PH.D.
DIRECTOR

ACKNOWLEDGMENTS

The evaluator wishes to express many grateful thanks to Dr. Audrey Herr for her preparation of the Final Evaluation Report, Program for Institutionalized Children for the school year 1975 - 1976, including her recomputation of data based upon Criterion-Referenced testing, and her excellent preparation of the data tables and Appendices. Her invaluable knowledge of this Title I program was gained in her Summer 1976 evaluation report and M. I. R., Program for Institutionalized Children.

Much sincere appreciation is also expressed to the Program Office at 110 Livingston Street where Program Coordinator: Jesse Sklarin and Assistant Program Coordinator: Jerry Cutler, have been unfailing in their continuous cooperation with all phases of the evaluation, and infinitely patient with the many delays occasioned by the processing of information from Criterion-Referenced testing.

sfw
12/76

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	i
LIST OF TABLES	iii
Chapter	
I. THE PROGRAM	1
II. EVALUATION PROCEDURES	9
III. FINDINGS	17
IV. SUMMARY OF MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS	47
APPENDIX	
A. Program Abstract	52
B. MIR Report	54
C. O.E.E. Data Loss Form	55
D. O.E.E. Observation Form	59

LIST OF TABLES

Table		Page
1R.	Distribution of Pupils Attempting Reading Objectives Prior to Instruction	19
1M.	Distribution of Pupils Attempting Mathematics Objectives Prior to Instruction	21
2R.	Ratios and Percentages of Pupils Achieving Mastery by Selected Reading Objectives After Instruction	25
2M.	Ratios and Percentages of Pupils Achieving Mastery by Selected Mathematics Objectives After Instruction	26
3R.	Distribution of the Number of Selected Reading Objectives Mastered After Instruction	27
3M.	Distribution of the Number of Selected Mathematics Objectives Mastered After Instruction	28
4R.	Distribution of Percentages by Decimal Intervals of Pupils Achieving Mastery of All Reading Objectives Attempted	30
4M.	Distribution of Percentages by Decimal Intervals of Pupils Achieving Mastery of All Mathematics Objectives Attempted	31
5R.	Improvement in Achievement by Percent of Change in Mastery on Selected Reading Objectives	33
5M.	Improvement in Achievement by Percent of Change in Mastery on Selected Mathematics Objectives	34

Chapter I: THE PROGRAM

Overview of the Program

The Program for Institutionalized Children 1975-76 provided a supplementary individualized reading and/or mathematics remedial program, utilizing a diagnostic-prescriptive approach with the Croft Reading and Base Mathematics materials in which achievement was measured by means of Criterion-Referenced Testing (CRT) procedures. Targeted pupils, all Title I eligible, numbering over 2,000 were identified as neglected or delinquent children, public or non-public, residing institutionally in loco parentis, and several years deficient in reading and/or mathematics skills.

Mastery in measured achievement was defined by the criterion of two or more NYSED coded instructional objectives passed from the Croft Reading/Base Mathematics systems per every 60 hours of the individualized/tutorial mode exposure for 70% of the non-graded (K-12 equivalent) population from the more than 100 state coded objectives available.

From its origins under Title I federal funding in the 1970-71 school year, the Program for Institutionalized Children has completed its sixth year of operation under a $1,050,156 budget. This sixth year, the service was expanded to 2,580 treatment cases in 38 institutions at 146 sites up 18.3% from the 2,181 serviced in 35 institutions at 98 sites for the 1974-75 school year as reported by Ramsay.[1]

---

[1]James G. Ramsay, Program for Institutionalized Children, 1974-75. B/E # 09-59636-74, Office of Educational Evaluation.

The service provided was the more remarkable under a downward adjusted budget to approximately $950,000, since the targeted population of 2,200 pupils K-12 was exceeded by 17.3%, and the targeted per pupil cost of $509.29 was reduced $141.07 to $368.22 actual expenditure.

Institutionalized children suffering reading and/or mathematics deficiencies in the group homes or larger institutions served were Title I eligible by reason of separation from their genealogical families under four definitions:

neglected public school pupils
neglected non-public school pupils
delinquent public school pupils
delinquent non-public school pupils.

The Project Proposal was violated by collapsing the vanishingly small number of non-public school pupils (not further identified) into the two public school categories of "neglected" and "delinquent" program participants.

The service provided by the program was limited to a diagnostic-prescriptive approach to reading and mathematics remediation, carried on as an after-school supplementary service, by a corps of travelling ("itinerant") Title I funded teachers, characteristically two or three days per week in two or four hour blocks of time. The days of service and the hours were Monday through Thursday inclusive, 3-5 P.M., 5:30-7:30 P.M., 6-8 P.M., 6:30-8:30 P.M., and 7-9 P.M. The Program did not operate Fridays. The funding period was September 1, 1975 through June 30, 1976, inclusive.

Virtually 100% of the population in the institutionalized setting were from minority groups in New York City (mostly Black and Puerto

Rican), from low SES (socio-economic status) families and neighborhoods, and, virtually all students levelled (measured) by standardized instruments, including the W.R.A.T. (Wide Range Achievement Test) showed extensive retardation in reading and/or mathematics. Consequently, this population was Title I eligible.

Participants were selected on the basis of their identified needs for remediation in reading and/or mathematics by test levelling and by recommendations of institutional personnel including institutional counselors, psychologists or social workers; or by regular day public school teachers and guidance personnel making recommendations. The number of participants who could be served at each institutional site was limited largely by the funding allocation budgeted to each institutional setting, and the limited number of hours of the assigned itinerant Title I teachers.

The staff, according to the Project Proposal, consisted of over 300 Title I personnel, virtually all of whom were funded on a part-time basis. The staff breakdown was as follows:

1 Coordinator	3 Specialist Teachers
1 Assistant Coordinator	2 Guidance Counselors
1 Mission Coordinator	1 Psychologist
4 Borough Area Supervisors	33 Paraprofessionals
13 Institutional Teachers-in-Charge	6 School Secretaries
229 Teachers, reading and/or math	8 Clerks

Total program personnel = 302

The instructional mode was largely one to one tutorial, with sessions running 30 to 60 minutes in duration twice weekly on the basis of

deficiencies diagnosed by pretesting and learning mediated by a wide range of focused materials in reading/math studied as individualized instruction.

Evaluation was based on the criterion referenced testing model (otherwise referred to as mastery-by-objectives) from diagnostic-prescriptive inputs in a pre-posttest administration sequence as follows: Following diagnosis of specific skill areas needing remediation, the appropriate narrowly focused pretest was administered. Depending upon nonmastery on the specified skill test, appropriate curriculum materials were given for a variable number of sessions on an individualized instructional basis, tutorial mode, until said material appeared to be acquired according to the instructor. Then, the same skill was posttested in the same way. Nonmastery was followed by recycled instruction in that objective. Posttest mastery was followed by pretesting on another, often related but different, specified skill objective, and the process was repeated throughout the funding period on an open-ended variable time basis.

Diverse materials were in use: For testing in reading, the McGuire-Bumpus (1971 edition) Croft Reading System was supplemented by programed instructional, workbook, multi-level kit, journal, story and audio-visual materials, presented principally in the printed medium. For testing in mathematics the Media Research Associates (1973 edition) seven-level Base Mathematics System was supplemented by programed instructional, workbook, multi-level kit, problem-solving puzzles, mathematical games, computational/programmable machines and calculators, presented principally in the

printed medium.

Program Objective and Code Listings

According to the Evaluation Design of July 1975, the program objective was stated as follows: "To help pupils achieve mastery of instructional objectives in reading and mathematics which they failed prior to instruction as measured by the Croft (Reading) and Base (Mathematics) Criterion-Referenced Tests.[2]

The Code listings are as follows:

PROGRAM FOR INSTITUTIONALIZED CHILDREN B/E #09-69636-79
School Year 1975-76

Component Codes:	Reading (Neglected)	Reading (Delinquent)
Grades 1- 3	608 43	608 53
4- 6	608 44	608 54
7- 9	608 45	608 55
10-12	608 46	608 56

	Mathematics (Neglected)	Mathematics (Delinquent)
Grades 1- 3	609 43	609 53
4- 6	609 44	609 54
7- 9	609 45	609 55
10-12	609 46	609 56

Activity Code: 720--Small Group Instruction

Overall Objective Code: 801--Cognitive Achievement, based on Norm-Referenced Testing was replaced by 28 reading objective codes, New York State Education Department, and by 59 mathematics objective codes, New York State Education Department, corresponding to over 150 Croft

---

[2]William Roth, Evaluation Design: B/E #09-69636-79, "School Year 1975-76 Program for Institutionalized Children." B/E, Office of Educational Evaluation.

Reading materials, and Base Math System materials objective classifications. The NYSED Codes are:

Reading 2101-2409 (discontinuous)

Mathematics 1101-1902 (discontinuous)

The three evaluation objectives and their modifications are presented in Chapter II.

Participating Institutions and Cross-Reference to Other Programs

Participation in this Title I supplementary after-school reading/mathematics remediation program was voluntary with each participating institution. The program coordinator's office has revealed that many institutions for dependent neglected/delinquent children exist outside of the 38 participating in 1975-76 whose population is almost entirely Title I eligible. A small number of institutional additions and dropouts occur each funded year. Although some institutions have reported limited tutorial remedial after-school services available within house, the organized professional itinerant service provided by the Board of Education teaching staff with its surfeit of reading/math materials and public funding does not exist outside of Program for Institutionalized Children. In that sense this program is unique, and does not cross-reference other known programs in the southernmost (largest) LEA in New York State. On the basis of projected needs assessment then, the Program Office maintains that the coverage of this program could easily be doubled.

The great majority of participating institutions represent children's organizations of the major religions in the area served. This can often

be noted from the institutional name. However, the population served is selected non-denominationally without formal quotas and consisted almost entirely of Black and Puerto Rican children. Only a small minority of participating institutions are publicly supported; e.g., the city's Department of Social Services Group Homes or the Spofford Juvenile Detention Center. The classified list and function number of institutions participating September 1975-June 1976 follows:

B/E Function No.		Neglected Children Institutional Name	Reading and Math Unless Otherwise Indicated
#09-696	38	Astor Home for Children	
	40	Brooklyn Home for Children	
	41	Catholic Guardian Soc. (Brooklyn)	
	42	Catholic Guardian Soc. (New York)	
	43	Catholic Home Bureau	
	44	Children's Center - - - - - - - - - - - -	Reading only
	45	Childville, Inc.	
	46	Covenant House	
	47	Divine Providence Shelter	
	48	Edenwald School	
	49	Friendly Homes	
	50	Girls Town	
	51	Hebrew Childrens Home	
	52	Hegeman Diagnostic Center	
	53	Hillcrest Center Annex	
	54	Henry Ittleson Center	
	55	Joseph P. Kennedy, Jr. Home	
	56	Lutheran Community Services	
	58	McMahon Memorial Shelter - - - - - - - -	Reading only
	59	Mission of the Immaculate Virgin	
	60	N.Y. Dept. of Social Services Group Home	
	61	N.Y. Dept. of Social Services Group Residence	
	62	N.Y. Foundling Hospital	
	65	Ohel Children's Home	
	66	Ottilie Home for Children	
	68	Queens Soc. for the Prevention of Cruelty to Children	
	70	St. Barnabus House	
	73	St. John's Residence	
	74	St. Joseph's Children's Services	
	75	St. Michael's Home	
	76	St. Vincent's Hall	
	78	Woodycrest Youth Services	

B/E Function No.		Delinquent Children Institutional Name	Reading and Math Unless Otherwise Indicated
#09-696	57	Marion Hall	
	63	Non Secure Detention Home	
	64	Odyssey House	
	71	St. Germaine Group Home	
	72	St. Helena's Residence	
	77	Spofford Juvenile Center	Reading only

Chapter II: EVALUATION PROCEDURES

Program Objective

A single program objective is the focus of this Title I remedial after-school hours service, as described more fully previously in Chapter I. As stated in the Evaluation Design of 1975, it reads:

> To help pupils achieve mastery of instructional objectives in reading and mathematics which they fail prior to instruction as measured by the Croft (Reading) and Base (Mathematics) Criterion Referenced tests. (Roth)[3]

Evaluation Objectives and Their Modifications

Of the three objectives and changes necessitated in them during the course of the project evaluation, the first two deal with data processing, analysis and reporting. The third is the implementation objective based on field observations and interviews.

Evaluation Objective 1. Again as taken from the design:

> To determine if, as a result of participation in the program, 70 percent of the pupils master instructional objectives which prior to the program they did not master in proportion to the following intervals of instruction: at least two for less than 60 hours; at least three for 60-80 hours; and at least four instructional objectives for more than 80 hours of instruction.
>
> Method. Using the Spring 1975 City-Wide test results as a leveler, all participants will be administered, as a pretest, selected criterion-referenced tests from the CROFT (Reading) and BASE (Math) to ascertain individual instructional objectives for each pupil. For each instructional objective diagnosed as requiring remediation (as determined by pretest failure), a posttest will be administered on an individual basis

---

[3] William Roth (July 1975). Evaluation Design; School Year 1975-76. Program for Institutionalized Children. B/E #09-696-36. Brooklyn, N.Y.: Office of Educational Evaluation.

after an appropriate interval of instruction. For each instructional objective, results of passing and failing on both the pretest and the posttest will be recorded on the Class Evaluation Record (C.E.R.).

Analysis. Data will be analyzed according to length of exposure to instruction. Results will be presented in tabular form ascertaining the percentage of participants demonstrating mastery or non-mastery of each instructional objective (according to SED classification system) at initial testing, and final testing separately for each of the following intervals of instruction:

a. less than 60 hours
b. between 60 and 80 hours
c. above 80 hours.

The design for Evaluation Objective 1 was not implemented, or more accurately, it can be said was only partially implemented by the following modifications:

1. The City-Wide Spring 1975 test results were usually not generally available to either institutional personnel serving in loco parentis or to the itinerant Title I part-time after-school instructors to serve as leveler. As stated in Chapter I, one of the most frequently available levelers was the W.R.A.T. (Wide Ranging Achievement Test) which would be administered by an institutional social worker or a travelling teacher (referred to by Ramsay in 1974-75 report as "tutors") who did not have interface with day school records or administrators. Moreover, City-Wide tests were not taken by all grade groupings, were not taken by nonpublic school pupils, and were often not taken by institutionalized children with a severe language handicap (i.e., recent arrivals from Puerto Rico, emotionally disturbed pupils in delinquent or maximum security settings). To date, an adequate comprehensive automatically processing method of access to institutionalized children's latest test scores is wanting

which would funnel up-to-date test scores to Title I teachers. In many cases, they find it more convenient to apply a more rapid procedure (i.e., the W.R.A.T.) themselves on site.

2. Another imperfectly followed design modality was the testing procedure in the CROFT (Reading) and/or the BASE (Mathematics) materials, where no universal or uniform procedure was followed for pretesting in "selected" criterion-referenced tests. Since the children were automatically unclassified as a nongraded diverse population, ranging in city-wide institutionalized settings from large centers to small group homes, from highly independent to maximum security configurations and from K-12 school origins, no predetermined narrowly focused group of objectives was used as a single pretest administration. Instead, individual teachers (tutors) were left to their own skills at estimating at what skills and levels each student appeared to be functioning. Then, perhaps only several objectives from the entire NYSED Objective Code list would be pretested on that student by the tutor. As already indicated in Chapter I, only after considerable instruction and corresponding posttesting on those few objectives pretested would other objectives fall into line for pretesting as determined by teacher expertise, often much later in the academic year. As will be shown in Chapter III--Findings, the most commonly apprehended objectives selected for remedial study in reading/mathematics only came into view during data analysis, following the end of instruction in Summer 1976.

In summary, then, the problem of selection of objectives among Special Education Institutionalized Children (unlike that of a more

homogeneous, in-school, graded, remedial program) has, at best, been elusive of solution.

3. Data analysis by interval of instruction was not accessible in this first year of the program-wide use of C-R-T, and therefore fails to appear in the analysis. The evaluation was assigned in January 1976 with field observations underway by February. Data were not received until June and July. No adequate means of (forms for) recording and centralizing time on a per pupil basis has been set forth for this year's analysis or for 1976-77 by Program. Among the contributory factors for this difficulty are: open-ended entry of students into program at various institutions all year long; short-term care institutions in the program where students are in diagnostic survey units for 30-45 days; impossibility of predicting when students might be transferred out and hence not receive benefits of a more complete early diagnosis with time for extended treatment, and finally, the voluntary attendance factor based entirely on motivation often not fostered by institutional (privately funded) personnel. Since essentially all institutional students are Title I eligible, anyone dropping from program is rapidly replaced by another student at the institution, thus maintaining each instructor's student roster.

Evaluation Objective 2. As taken from the design:

> To determine, as a result of participation in the program, the extent to which pupils demonstrate mastery of instructional objectives.

Analysis. Again taking the total program population and utilizing the C-R-T pre/posttest information from selected CROFT (Reading) and

BASE (Mathematics) objectives as in Evaluation Objective 1:

Data will be analyzed and presented in narrative and tabular form to ascertain each of the following:

A. The distribution of pupils failing to demonstrate mastery prior to instruction and not receiving sufficient instruction to receive the posttest (Table A).

B. The distribution of pupils failing to demonstrate mastery of objectives prior to instruction (Table B).

C. The distribution of pupil mastery as a result of instruction by instructional objectives (Table C).

D. The distribution of the number of objectives mastered as a result of instruction (Table D).

E. The distribution of percentage of pupils achieving various levels of mastery of instructional objectives (Table E).

The design for Evaluation Objective 2 was violated by the following modifications:

1. Elimination of Tables A and B as low yield information which has correspondingly been omitted from numerous other Special Education evaluations. The symbol "0" for pretest nonmastery used on the C.E.R. (Class Evaluation Record) grid sheet would be masked later by the stroke "/" for mastery "Ø." Where instruction is not provided following pretest nonmastery and posttests not given, some teachers are loathe to list failure where student records are transferred from individual pupil folders to the class C.E.R. sheets. It should also be remembered that comprehensive testing across many objectives is often wanting, so an accurate baseline of failure listing is not available from the target population as a whole.

Tables 1R (Reading) and 1M (Mathematics) have been substituted,

and represent part of the requirement for Evaluation Objective 1, showing how many students attempted via testing all of the 41 objectives (reading) and 59 objectives (mathematics). From the data shown in Tables 1R; 1M, as recommended by NYSED in conference with OEE March 1976, a 25% cut-off line was selected (approximately 410 students--reading; 220 students--mathematics) resulting in 10 selected reading objectives and 19 selected mathematics objectives for further analysis, thus delimiting the evaluation to manageable proportions.

2. Tables 2R (Reading) and 2M (Mathematics), representing the distribution of pupil mastery by selected instructional objectives, substitutes for Table "C" and violates the design by being limited to only those objectives studied as instructional input by 25% or more of the participating students.

3. Tables 3R (Reading) and 3M (Mathematics), representing the distribution of how many objectives each pupil was able to master at the end of the year by tally, substitutes for Table "D." Here again, the count stops at 10 reading; 19 mathematics objectives, and the design is violated by a unit tally count of objectives up to 10, rather than a class interval count by groupings of two objectives per class interval.

It will be noted importantly that Tables 3R; 3M = "D" answers in part the design requirement criterion of Evaluation Objective 1 that 70% of pupils master two or more objectives for reading or mathematics. (See details in Chapter III--Findings.) Program has estimated that with two tutorial hour sessions per week times 38 weeks available for the academic 1975-76 school year, that the 60 hour minimum interval of

instruction criterion has been amply exceeded as a mean figure for all participants not suffering the deprivations of short interval transfer or very late entry into program.

4. Tables 4R (Reading) and 4M (Mathematics), representing percentages of pupils achieving mastery by grouped (10%) intervals, is substituted for Table "E," but otherwise conforms to design requirements.

5. Tables 5R and 5M indicate change in cognitive achievement (increase in knowledge in reading/math) from pretest mastery or "base-line" to added mastery as a result of instruction. This useful finding for selected instructional (most frequently studied) objectives in reading or in mathematics completes the data analysis presented in Chapter III by answering frequently asked questions about cognitive change as a result of instruction. However, this does not appear as a requirement in the evaluation objectives, and is hence a further departure from the design modality.

Evaluation Objective 3. As stated in the design:

> To determine the extent to which the program, as actually carried out, coincided with the program as described in the Project Proposal.

This is the discrepancy analysis objective which is based on field observational reports and interviews. This objective was incompletely implemented since only 22 of 88 required site visits were made, representing a sampling of only 15.1% of the program. In addition, the O.E.E. required that all 39 institutions represented be sampled in the required visits, whereas only 17 participating institutions representing only 43.6% were so covered. Late assignment of the project to end of January 1976

was one of a number of contributory factors leading to undervisitation. Nonetheless, the evaluation has determined that a sufficient number of sites were sampled to fulfill minimum reporting requirements, as will be found in Chapter III--Findings.

Chapter III: FINDINGS

The following presentation of findings is in accordance with the modifications in the evaluation design as described in Chapter II of this report.

The first evaluation objective was:

> To determine if, as a result of participation in the program, 70 percent of the pupils master instructional objectives which prior to the program they did not master in proportion to the following intervals of instruction: at least three for 60-80 hours; and at least four instructional objectives for more than 80 hours of instruction.

This evaluation objective was considerably modified. The time interval element in the data collection was precluded by the late start of the evaluation project. In addition, the number of instructional objectives in reading and mathematics to be considered was limited to those having a minimum of 25% of the students attempting them. Consequently the response to this evaluation objective is based on selected instructional objectives only and does not accurately reflect the total post-instruction achievement of mastery of the program participants.

The findings indicate that the program did not meet this objective in reading as 54% of the pupils (N = 1685) achieved mastery of two or more selected reading objectives as a result of instruction. In mathematics 73% of the pupils (N = 853) mastered at least two of the selected instructional objectives. Thus, the program met this evaluation objective in mathematics but not in reading.

In considering these findings it should be noted that examination of the Class Evaluation Records indicated that many of the students had

achieved mastery of objectives other than the ones identified using the 25% criterion level. Therefore basing the data for this evaluation objective on only the selected instructional objectives places a serious limitation on the accuracy of this finding.

The second evaluation objective was:

> To determine, as a result of participation in the program, the extent to which pupils demonstrate mastery of instructional objectives.

Due to the fact that teachers were free to choose from among the 41 reading objectives and the 59 mathematics objectives, those which they found each student needed, an unmanageable amount of data was available. Consequently, with the approval of the SED, the data were analyzed to determine how many students attempted each of the objectives in reading and objectives in mathematics. Tables 1R (Reading) and 1M (Mathematics) show the distribution of students attempting each instructional objective. Utilizing a 25% criterion as the cut-off line, 10 objectives in reading (N = 1640) and 19 objectives in mathematics (N = 894) were selected for subsequent analyses. The 10 selected objectives in reading included both word attack and comprehension skills. An even larger number of 19 mathematics objectives were selected ranging from preoperational to exponents and geometric skills.

Insert Tables 1R and 1M here

As is shown in Table 2R, for each of the selected reading objectives, from 77 to 93% of all pupils attempting an objective achieved mastery.

Table 1R

Distribution of Pupils Attempting Reading Objectives
Prior to Instruction
(Includes Pretest Mastery + Pretest Failure)
Total Pupil N (Treatment Cases) = 1,640

CROFT Reading Objective by NYS Objective Codes	No. of Pupils Attempting Objective	Percentage (%) of Total Pupil N
2101[a]	459/1,640	28.0
2102[a]	698 ↓	42.6
2103	255	15.5
2104[a]	633	38.6
2105[a]	576	35.1
2106[a]	651	40.1
2107[a]	500	30.5
2108[a]	411	25.1
2109	296	18.0
2201	261	15.9
2202	316	19.2
2203	307	18.7
2204	364	22.2
2205	280	17.1
2301	134	08.2
2302	81	04.9
2303	121	07.4
2304	148	09.0
2305	122	07.4
2306	74	04.5
2402	292	17.8
2403[a]	635	38.7
2404[a]	826	50.4
2505	182	11.1
2406[a]	725	44.2
2407	163	09.9
2408	303	18.5
2409	149	09.1

[a]Reading objective selected for further study by having exceeded the 25.0% criterion (410 pupils) of pupils attempting said criterion. Total = 10 selected Reading Objectives according to the CROFT Educational Services, Inc. (1971) materials

List of 10 Selected Reading Objectives

NYSED Objective Code	Name of Objective
2101	Letter Recognition
2102	Initial Consonants
2104	Final Consonants and Blends
2105	Consonant Blends
2106	Vowels: Single Letters
2107	Vowels: More than One Letter
2108	Consonant Digraphs
2403	Inferences, Cause or Effect
2404	Facts and Details
2406	Main Ideas

Table 1M

Distribution of Pupils Attempting Mathematics Objectives
Prior to Instruction
(Includes Pretest Mastery + Pretest Failure)
Total Pupil N (Treatment Cases) = 894

BASE Math Objective by NYS Objective Codes	No. of Pupils Attempting Objective	Percentage (%) of Total Pupil N
1101[a]	537/894	60.1
1102[a]	468 ↓	52.3
1103[a]	586	65.5
1104[a]	382	42.7
1105[a]	227	25.4
1106[a]	312	35.0
1107[a]	623	70.0
1108[a]	615	69.0
1109[a]	598	67.0
1110[a]	584	65.3
1111[a]	357	40.0
1112[a]	220	25.0
1113[a]	386	43.2
1114[a]	267	30.1
1115[a]	364	41.0
1116[a]	251	28.1
1117[a]	433	48.4
1118[a]	222	25.0
1201	150	17.1
1202	199	22.2
1203	153	17.1
1204	157	18.1
1205[a]	241	27.0
1206	174	19.4
1207	132	15.1
1208	126	14.1
1209	138	15.4
1210	78	8.7
1211	95	10.6
1212	131	15.0
1301	144	16.1
1302	199	22.2
1303	137	15.3
1304	94	10.5
1305	196	22.0

Table 1M (continued)

BASE Math Objective by NYS Objective Codes	No. of Pupils Attempting Objective	Percentage (%) of Total Pupil N
1306	208	23.3
1307	62	6.9
1308	70	7.8
1501	76	8.5
1502	121	13.5
1503	83	9.3
1504	60	6.7
1505	59	6.6
1601	130	14.5
1602	119	13.3
1603	64	7.2
1604	64	7.2
1606	87	9.7
1607	64	7.2
1701	100	11.1
1702	104	11.6
1703	64	7.2
1801	58	6.5
1802	52	5.8
1803	61	6.8
1804	61	6.8
1805	64	7.2
1901	102	11.4
1902	138	15.4

[a]Mathematics Objective selected for further study by having exceeded the 25.0% criterion (220 pupils) of pupils attempting said objective. Total = 19 Selected Mathematics Objectives according to the BASE Mathematics System materials of Media Research Associates (1973).

List of 19 Selected Mathematics Objectives

NYS Code	Name of Objective
1101	Pre-op Concepts; Order, Number, etc.
1102	Whole Numbers
1103	Fractions
1104	Decimals
1105	Negative Numbers
1106	Real Numbers
1107	Addition
1108	Subtraction
1109	Multiplication
1110	Division
1111	Properties of Operations; Relations
1112	Numeration Systems
1113	Number Problems
1114	Number Theory
1115	Estimation
1116	Percent
1117	Place Value
1118	Exponents
1205	Geometric Forms: Triangles, etc.

The mean percent of mastery was 82.5. In mathematics, 18 of the 19 selected objectives were mastered by from 75 to 98% of the pupils attempting them, with a mean of 86.9. Only one selected mathematics objective was mastered by 67.7% of the students. These data are positive indicators of the effectiveness of the instructional technique.

Insert Tables 2R and 2M here

Tables 3R and 3M look at the data from a different perspective. They report how many of the selected objectives only, each individual student mastered after instruction. Overall, for both the neglected and delinquent pupils, in reading (Table 3R) 74% of the students mastered at least one of the selected instructional objectives, while 54% achieved mastery of more than two of the selected objectives. The median number of selected reading objectives mastered was three for the neglected group and two for the delinquent population. Correspondingly, a mean of 2+ selected objectives were mastered by the neglected group and 1+ for the delinquent group.

Insert Tables 3R and 3M here

As can be seen on Table 3M, 87% of all of the pupils attempting the 19 selected instructional objectives achieved mastery of at least one objective, while 73% of the students mastered a minimum of two selected objectives. The median number of selected mathematics mastered

Table 2R

Ratios and Percentages of Pupils Achieving Mastery by Selected Reading Objectives After Instruction (Posttest Mastery of 10 Most Frequently Studied CROFT System Reading Objectives)

CROFT Reading Objectives by NYS Objective Codes	Ratios: No. Achieved Mastery ÷ Total No. Posttested	Percentage (%) of Pupils Achieving Mastery
2101	156/169	92.3
2102	319/342	93.3
2104	358/413	86.7
2105	342/411	83.2
2106	409/503	81.3
2107	295/382	77.2
2108	254/311	81.7
2403	355/454	78.2
2404	474/580	81.7
2406	352/454	77.5

Mastery: Range 77.2%-93.3%
Mean 3314/4019 = 82.5%

Table 2M

Ratios and Percentages of Pupils Achieving Mastery by Selected Mathematics Objectives After Instruction (Posttest Mastery of 19 Most Frequently Studied Base System Math Objectives)

BASE Math Objectives by NYS Objective Codes	Ratios: No. Achieved Mastery ÷ Total No. Posttested	Percentage (%) of Pupils Achieving Mastery
1101	189/205	92.2
1102	144/153	94.1
1103	309/315	98.1
1104	152/186	81.7
1105	66/ 88	75.0
1106	91/ 99	91.9
1107	222/236	94.1
1108	262/275	95.3
1109	264/305	86.6
1110	275/333	82.6
1111	130/162	80.2
1112	90/108	83.3
1113	117/151	77.5
1114	69/ 89	77.5
1115	150/175	85.7
1116	87/104	83.7
1117	177/202	87.6
1118	67/ 99	67.7
1205	88/109	80.7

Mastery: Range 67.7%-98.1%
Mean 2,949/3,394 = 86.9%

Table 3R

Distribution of the Number of Selected Reading Objectives Mastered After Instruction
(How Many of 10 Most Frequently Studied CROFT System Reading Objectives Pupils Mastered)

Number of Reading Objectives Mastered	Distribution No. of Pupils		Percentage (%) of Pupils by Objectives Mastered	
	Neglected (N = 1,527)	Delinquent (N = 158)	Neglected	Delinquent
0	404/1527	37/158	26.5	23.4
1	289 ↓	51 ↓	18.9	32.3
2	323	40	21.2	25.3
3	232	21	15.2	13.3
4	117	6	7.7	3.8
5	81	1	5.3	0.6
6	40	2	2.6	1.3
7	19	0	1.2	0.0
8	9	0	0.6	0.0
9	13	0	0.9	0.0
10	0	0	0.0	0.0
Totals	N = 1,527	158	100.1%	100.0%

Median No. of Selected Objectives Mastered = 3 (Neglected)
2 (Delinquent)

Mean = 2+ (Neglected)
1+ (Delinquent)

Table 3M

Distribution of the Number of Selected Mathematics Objectives Mastered After Instruction

Number of Mathematics Objectives Mastered	Distribution No. of Pupils		Percentage (%) of Pupils by Objectives Mastered	
	Neglected (N = 776)	Delinquent (N = 77)	Neglected	Delinquent
0	100/776	9/77	12.9	11.7
1	98 ↓	23 ↓	12.6	29.9
2	109	12	14.0	15.6
3	108	7	13.9	9.1
4	101	11	13.0	14.3
5	97	3	12.5	3.9
6	59	5	7.6	6.5
7	43	1	5.5	1.3
8	24	5	3.1	6.5
9	12	0	1.5	0.0
10	11	1	1.4	1.3
11-19	14	0	1.8	0.0
Totals	N = 776	77	99.8%	100.1%

Median No. of Selected Math Objectives Mastered = 3 (Neglected)
2 (Delinquent)

Mean No. of Selected Math Objectives Mastered = 2+ (Neglected)
1+ (Delinquent)

was three for the neglected group and two for the delinquent group. The neglected group had a mean of 2+ selected objectives mastered and the delinquent group had a mean of 1+ selected objectives mastered.

It is obvious from Tables 3R and 3M that the pupils identified as delinquent achieved somewhat less in both reading and mathematics than did the pupils in the neglected category.

The effectiveness of the C-R-T approach is demonstrated by the fact that more than half of all students mastered from 90 to 100% of all of the reading objectives attempted after receiving instruction (59.6% neglected, 54.3% delinquent) as shown in Table 4R. Moreover 82% of the total population achieved mastery on more than half of the objectives attempted. Even greater success was indicated in mathematics (Table 4M) in that 63.2% of the neglected pupils and 70.7% of the delinquent pupils mastered 90 to 100% of all objectives attempted. Eighty-five percent (84.9%) of all students mastered more than half the objectives which they had failed on the pretest after instruction.

Insert Tables 4R and 4M here

It is interesting to note that in reading, 13.1% of the neglected and 15.7% of the delinquent pupils mastered from 0-9%, whereas in mathematics 10.8% of the neglected and 8.0% of the delinquent pupils did similarly. This difference may be attributable to the inclusion of a greater proportion (32%) of the 59 instructional objectives in mathematics than the 24% of the 41 reading objectives in the objectives

Table 4R

Distribution of Percentages by Decimal Intervals of Pupils Achieving Mastery of All Reading Objectives Attempted Tally of (Total No. of Objectives Achieved ÷ Total No. of Objectives Attempted [Studied] Per Student)

Percentages of Mastery by Decimal Intervals [No. Mastered (Ø) / No. Mastered + Failed (Ø + ☒)]	No. of Pupils by Interval		Percentage (%) of Pupils	
	Neglected (N = 1,476)	Delinquent (N = 153)	Neglected	Delinquent
90-100%	880/1,476	83/153	59.6	54.3
80- 89%	87	17	5.9	11.1
70- 79%	67	11	4.5	7.2
60- 69%	97	9	6.6	5.9
50- 59%	80	8	5.4	5.2
40- 49%	16	0	1.1	0.0
30- 39%	24	0	1.6	0.0
20- 29%	25	1	1.7	0.7
10- 19%	7	0	0.5	0.0
0- 9%	193	24	13.1	15.7
Totals	N = 1,476	153	100.0	100.1

Median Interval = 90-100% Neglected, 90-100% Delinquent

Table 4M

Distribution of Percentages by Decimal Intervals of Pupils Achieving Mastery of All Mathematics Objectives Attempted
Tally of (Total No. of Objectives Achieved ÷ Total No. of Objectives Attempted [Studied] Per Student)

Percentages of Mastery by Decimal Intervals [No. Mastered (Ø) / No. Mastered + Failed (Ø + M)]	No. of Pupils by Interval		Percentage (%) of Pupils	
	Neglected (N = 806)	Delinquent (N = 75)	Neglected	Delinquent
90-100%	509/806	53/75	63.2	70.7
80- 89%	42 ↓	2 ↓	5.2	2.7
70- 79%	37	2	4.6	2.7
60- 69%	53	5	6.6	6.7
50- 59%	43	2	5.3	2.7
40- 49%	12	2	1.5	2.7
30- 39%	12	2	1.5	2.7
20- 29%	6	0	0.7	0.0
10- 19%	5	1	0.6	1.3
0- 9%	87	6	10.8	8.0
Totals	N = 806	75	100.0	100.2

Median Interval = 90-100% Neglected, 90-100% Delinquent

selected based on the 25% criterion.

Overall there were substantial increases in the cognitive achievement of the program participants in reading and mathematics from the beginning to the conclusion of the school year. Table 5R indicates that for the 10 selected reading instructional objectives there were gains in mastery as a result of instruction, ranging from 9.5% to 26.9% on individual objectives by the pupils in the neglected category, with a median of 20.6%. Of these, 60% of the selected reading objectives had gains of more than 20% in student mastery. The delinquent population had gains ranging from 5.1% to 39.9% with a median of 12.7%. However, only 20% of the selected objectives had gains of 20% or more in student mastery.

Insert Tables 5R and 5M here

Looking across the data in Table 5R the full impact of the program in increasing the reading skills of pupils can be observed. For example, instructional objective 2404 (Facts and Details) was mastered by only 7.9% of the neglected pupils and by 10.1% of the delinquent pupils upon entering the program. However, at the termination of the program it was mastered by 34.8% of the neglected and by 50% of the delinquent. While this was the most dramatic increase, gains of more than double the entry mastery were made for 80% (8 out of 10) of the selected objectives by the neglected group, and for 30% of the selected objectives by the delinquent group.

In mathematics, there were gains in student mastery on the 19 selected

Table 5R

Improvement in Achievement by Percent of Change in Mastery on Selected Reading Objectives (Pre-to-Post Change) (N = 1,527 pupils Neglected; 158 pupils Delinquent)

New York State Codes for CROFT Reading Objectives	Pretest Mastery (Not Instructed)				Posttest Mastery (Instructed After Pretest Failure)				Total Mastery	
	Neglected		Delinquent		Neglected		Delinquent		Neglected	Delinquent
	No.	%	No.	%	No.	%[a]	No.	%[a]	%	%
2101	242	15.8	34	21.5	145	9.5	11	7.0	25.3	28.5
2102	300	19.6	38	24.1	302	19.8	17	10.8	34.8	34.9
2104	174	11.4	19	12.0	341	22.3	17	10.8	33.7	22.8
2105	135	8.8	8	5.1	319	20.9	23	14.6	29.7	19.6
2106	124	8.1	10	6.3	386	25.3	23	14.6	33.4	20.9
2107	79	5.2	9	5.7	281	18.4	14	8.9	23.6	14.6
2108	89	5.8	4	2.5	246	16.1	8	5.1	21.9	7.6
2403	95	6.2	21	13.3	326	21.3	29	18.4	27.6	31.6
2404	120	7.9	16	10.1	411	26.9	63	39.9	34.8	50.0
2406	128	8.4	40	25.3	317	20.8	35	22.2	29.1	47.5
Duplicated Totals	1,486		199		3,074		240			

(a) The percents in these two columns represent actual gains obtained for each selected reading objective as a result of instruction.

Table 5M

Improvement in Achievement by Percent of Change in Mastery on Selected Mathematics Objectives (Pre-to-Post Change) (N = 776 pupils Neglected; 77 pupils Delinquent)

New York State Codes for BASE Math Objectives	Pretest Mastery (Not Instructed)				Posttest Mastery (Instructed After Pretest Failure)				Total Mastery	
	Neglected		Delinquent		Neglected		Delinquent		Neglected	Delinquent
	No.	%	No.	%	No.	%(a)	No.	%(a)	%	%
1101	303	39.0	28	36.4	180	23.2	9	11.7	62.2	48.1
1102	302	38.9	15	19.5	132	17.0	12	15.6	55.9	35.1
1103	150	19.3	23	29.9	280	36.1	29	37.7	55.4	49.4
1104	144	18.6	9	11.7	140	18.0	12	15.6	36.6	27.3
1105	81	10.4	1	1.3	63	8.1	3	3.9	18.6	5.2
1106	162	20.9	6	7.8	89	11.5	2	2.6	32.3	10.4
1107	357	46.0	45	58.4	215	27.7	7	9.1	73.7	67.5
1108	294	37.9	42	54.5	242	31.2	20	26.0	69.1	80.5
1109	192	24.7	27	35.1	247	31.8	17	22.1	56.6	57.1
1110	139	17.9	22	28.6	262	33.8	13	16.9	51.7	45.5
1111	125	16.1	8	10.4	118	15.2	12	15.6	31.3	26.0
1112	80	10.3	2	2.6	89	11.5	1	1.3	21.8	3.9
1113	164	21.1	20	26.0	107	13.8	10	13.0	34.9	39.0
1114	115	14.8	1	1.3	61	7.9	8	10.4	22.7	11.7
1115	119	15.3	8	10.4	141	18.2	9	11.7	33.5	22.1
1116	53	6.8	2	2.6	71	9.1	16	20.8	16.0	23.4
1117	153	19.7	32	41.6	168	21.6	9	11.7	41.4	53.2
1118	54	7.0	4	5.2	64	8.2	3	3.9	15.2	9.1
1208	59	7.6	5	6.5	79	10.2	9	11.7	17.8	18.2
Duplicated Totals	3,046		300		2,748		201			

(a) Acual gains for each math. obj. as a result of instruction.

instructional objectives ranging from 7.9 to 36.1% of the pupils in the neglected group, with a mean of 14.2%, and from 1.3 to 37.7% for the pupils in the delinquent category, with a mean of 11.7%.

Increases of more than 10% were made by both the neglected and delinquent groups of pupils respectively for 16 and 14 of the 19 selected objectives. Thus the increases in mathematics were consistent, if of less magnitude, than the increases made in reading by the neglected group. The delinquent group made greater gains in mathematics than they did in reading.

In summary, the data presented to assess the second evaluation objective indicated that the program was effective in that there was from 77 to 93% mastery of each of the 10 selected instructional objectives in reading and from 68 to 98% mastery of the 19 selected objectives in mathematics. Further, more than 50% of the participants in the program mastered between 90-100% of the selected objectives attempted in reading. In mathematics there was an even greater proportion of students in both the neglected (62%) and delinquent (71%) groups who achieved similarly.

The preceding five sets of tables adequately explicate the extremely lengthy M.I.R. Report (Table 13, N.Y.S.E.D. for Criterion Referenced test results), Appendix B. Because of this extreme length, the difficulty of making meaningful interpretation from it by mere inspection, the costs and problems involved in binding it into this Final Evaluation Report, Appendix B has been bound under separate cover, as previously submitted in 1976.

The third evaluation objective was:

To determine the extent to which the program, as actually carried out, coincided with the program as described in the Project Proposal.

Field Observations

Seventeen institutions of the 39 participating (by budget number) were observed in 22 field visits in the first five months of 1976 allocated to the project, constituting 15.1% of the 146 sites in the program, as stated earlier in Chapter II.

Observational field visits were made in late afternoon or evening, and were of two hours duration. A precoded single Observation Form sheet was prepared for each visit (see Appendix D). Students were observed in tutorial reading and math sessions, but not interviewed in depth. The Title I itinerant teacher(s) were interviewed in depth as was the institutional supervisory and supportive personnel who provided demographic data on the total student body at each site and the average length of institutionalization. The latter provided a tour of the total facility in each case, including living quarters, food preparation, recreational and health facilities, although these lay outside the Title I funding and may not be commented upon in detail.

Observational Form Sheet. This one-page field instrument (see Appendix D) provided for comment on student register, age and grade range, days and hours of instruction, adequacy of facilities and program, materials in use in reading and mathematics, testing procedures and individual student records, degree of individualization, strengths, weaknesses and

recommendations for improvement; all on one page. Additional sheets were attached where necessary.

Field data. The mean number of students enrolled in the Title I program was 9 at group homes and 63 at the larger institutions visited. All ages, 5 through 18 were seen in these visits, equivalent in grade progress from first grade through senior high school. The median range of stay was 6 months to 2 years at institutions for the neglected; and only 3 months for three delinquent and diagnostic centers visited. Because children lived at the site where remediation was provided, attendance was found to be over the 80% level in virtually all visited sites and over 90% in approximately half the sites visited. Each student received one or two remedial sessions per week in reading or in mathematics at group homes; two or more sessions per week at the larger institutions.

Adequacy of facilities. Larger institutional settings provided more complete facilities as compared to individual group homes (population 9-12 students) which utilized undefined space in the living room, game room, bedroom, or sometimes a houseparent's office as instructional location for the Title I remedial sessions. Unfortunately, it was observed that some of these rooms did not always sufficiently insulate the tutorial sessions from the life of the group home. Although a number of group homes maintained a small library of reading/mathematics materials, including kits and games, none of the smaller homes visited contained a definable reading/math lab or resource center. Moreover, none of the group homes visited contained or utilized any audiovisual equipment or materials other than cassette tapes brought during itinerant visits by

some of the Title I tutors. These teachers repeatedly reported carrying some of the immediately used tutorial material with them from their parent day schools on these itinerant work sessions in the trunks of their cars. In contrast, every larger institutional setting maintained a complete reading/math laboratory-resource center facility. Typically these facilities were housed in the public school building on the grounds or in the school portion of the institution (such as one floor of instructional rooms) where such was present. These latter resource centers were adjudged fully up to standard with that of reading/math laboratories visited in Title I funded day school programs. As for the group homes, there is no comparable facility to cross-reference with in any other known program to compare adequacy of the facilities of this unique program where it was adjudged fully implemented in all components stated in the Program Proposal.

Adequacy of materials. Commonly found reading materials in use in both group homes and larger institutions, included: Croft: Skillpaks--two levels--primary--intermediate; Scott Foresman: Open Highways Skill Book; Scholastic Book Service: Scholastic Scope Series '73; Barnell Loft Ltd.: Specific Skills Series; Webster Div., McGraw-Hill: New Practice Readers; McCall-Crabbe: Standard Test Lessons in Reading; Springboards; Reading for Understanding; Random House: Structural Reading Series '66; and Sullivan Programed Readers. Some teachers did not prefer use of Croft: "Skillpaks" which they held too closely approximated the Croft: Criterion Referenced tests. Among kits, games and audiovisual materials found in reading labs was: SRA: Reading

Laboratories; Instructo Corp., Paoli, Ill.: Spirit Duplicating Masters; EDL: Controlled Reader; EDL: Tachistoscope; Lotto; McGraw-Hill: Plus Four Reading Booster--Cards, Code Book and Tapes; and Scrabble--Junior-Senior. All reading labs were supplemented by workbooks, paperbacks and periodicals.

Commonly found mathematics materials in print in use included: Laidlaw Bros., div. McGraw-Hill: Spectrum Series (Math) Gr. 1-Adult; and standard textbook-workbook combinations in algebra, geometry and arithmetic. Math kits, games and audiovisual materials found included: SRA: Mathematics Laboratories; 'Instructo' : Math Games; Milton Bradley Co., Springfield, Mass.: New Math Flash Cards; Cuisinaire Rods; Great Ideas Inc., Commack, L.I.: Arithmablocks; and math filmstrips and cassette tapes.

Teacher interviews and observations. Every teacher visited maintained individual student record folders, and described in some detail the diagnostic-prescriptive approach to the remedial reading/mathematics program as presented earlier in Chapter I. Every teacher visited was observed (throughout the Spring term) either in a phase of diagnostic testing, critical reading diagnosis for reading placement, or in regular tutorial instruction. Occasionally a posttest for mastery determination following instruction in a specific objective was observed. Most instruction observed was totally individualized on a 1:1 basis. Where small groups of children were observed (2-5 pupils) around a table, individual problems were counselled, and almost every time each student was on a different lesson and study material, thus again representing total individualization.

The single most common denominator among the over 50 teachers covered by these observations was their opinion of how positively reinforcing was the 1:1 tutorial relationship. The students apparently preferred tutorial sessions of the Title I remedial program to their regular day school group instruction, and this served as a high motivator for continued attendance and sustained work without discipline problems. According to one teacher, the technique of individualization was still a "quantum leap" from a full accommodation in teaching style to the tutorial mode and from skillful application of diagnostic approaches to modular learning. He believed that while most teachers had fully implemented the tutorial procedures of this program, few had taken this great "leap." The evaluator observed that while the great majority of teachers appeared well versed with the CRT approach to measurement by objectives, materials used for instruction and record transfer of individual scores to the Class Evaluation Record sheet, one or two experienced teachers were observed to be less than well organized in their record keeping procedures as well as apparently haphazard in their approach to diagnosis and prescription.

It should be noted at this point that every field visit evening was followed by a feedback debriefing conference at the Program Coordinator's Office where any discrepant observation was conveyed. Such feedback would fit the model of a process evaluation which is fully consonant with the continuous criterion referenced testing function in this program.

Student opinion. Students were polled on an irregular basis as to their reaction to the program. Invariably participants stated they

enjoyed being in the resource room in institutional settings, felt their reading/math had improved as a result of instruction, and especially they looked forward to the personal attention accorded them by their tutors as the single strongest positive feature of the program. Only several related their felt reading or math gains to improving their work in their regular day school. Since the evaluator did not have the confidence of the students, the conditions of interviewing were not adequately controlled, and forms had not been developed to formally characterize the interviews, this aspect of field observations was neither pursued in depth nor required in the design to be so pursued.

Strengths and weaknesses of the program. Apart from the most positive aspects of the program in reduction of deficits in basic cognitive skills and the positive rapport between tutors and participants, some additional perceived strengths recorded during interviews with Title I teachers or institutional personnel included: the ability of students to work on weak skill areas without the embarrassment occasioned in regular group classes, the Halo Effect of success in one skill to motivate continued work in other skills, favoritism to the Croft and Base: Criterion Referenced Test systems leading to easier and proper sequencing of prescribed student study ruling out guesswork, and the complete individualization of instruction. The cooperative, supportive Program Office, its Program Coordinator and Assistant Coordinator, were often seen as bright stars among the constellation of program strengths.

Criticisms of problems encountered as program faults or weaknesses were encountered more often. The most prominent of these related to the

as yet unresolved problems of relating publishers' specific skill objectives to the New York State Objective Code listings for both reading and mathematics. Particularly where a publisher's objective cut across two or three State Codes, teachers did not know where to classify the work. Conversely, finely dissected publisher's materials might relegate three to six mastered objectives within one State Code number. The student had met the design criterion of mastered objectives according to the publisher's objectives, but failed the design criterion by receiving only one check mark for having mastered only one New York State Objective.

An oft-heard weakness of the program was the limited communication between the Title I teachers and the educational supervisors, especially at the larger institutions. Recommendations to improve such articulation still are to be forthcoming, especially if time and absence of funds do not permit monthly meetings. In certain diagnostic centers and in delinquent maximum security centers, the problem of high mobility and student turnover appeared persistent and not solvable in terms of providing enduring instruction from the same tutor over an extended time period. In group home situations, some itinerant teachers complained of material shortages to meet every diagnosed need. They objected to having to scrounge materials from parent day schools and having to bootleg it to group homes in their car trunks. A few teachers complained of data loss through refusal of some recalcitrant older students to be tested. This problem was seen more often among sites housing students with high turnover or from court remands.

Some institutional (non-Title I) supervisors called for

paraprofessionals (educational assistants), a request never heard from the program's teachers themselves. These same institutional supervisors tended to disfavor group homes and detention homes. They sought for "Treatment Centers" with children living at home. This contrasts sharply with one research oriented institutional setting where for the past two dozen years, children have been accepted for treatment/remediation only if parents (from intact families) agree to undergo weekly treatment sessions for themselves as well as their children at the institution.

At one institution, the dormitory set-up was seen as too close to the on-site classrooms so there was an inadequate sense of separation of the school function from the home life function. Individual teachers serving in both reading and mathematics tutorial capacities were seen as both a program strength and a weakness at different sites. Finally, the repeated complaints about budget cuts and material shortages, teacher layoffs and excessing, were too numerous to be commented upon further.

In summary, it is the judgment of the evaluation that the program has been fully implemented at all functioning sites, is meeting the needs of the unusually diverse target population as defined in the Program Proposal, and has encountered no greater interfering discrepancies than might be expected in this far-flung Special Education Program.

Recommendations for program improvement. These stemmed from the above enumerated weaknesses, and have been implicit where not otherwise stated in the preceding section. The most significant statements of recommendations, subsumed under the two categories of CRT testing and the instructional program will be found with full explanations at the

end of Chapter IV, following.

Implementation of Previous Report Recommendations

The following discussed recommendations have been quoted exactly from the Final Evaluation Report (Ramsay, 1974-75).[4]

A. Tutors' Recommendations

1. "Replacement of the MAT."

Implemented. Norm referenced testing is no longer used to measure achievement. The Croft reading and Base mathematics systems' criterion referenced test materials have been in use for one year.

2. "Extension of the program to areas related to reading and mathematics."

Not implemented. Reading and mathematics were studied as separate not integrated subject matter, even where the same itinerant teachers handled both subjects with the same students. The program was not extended to social studies, the sciences or other areas inasmuch as federal guidelines and limited funds and time allocations limited its application to remedial reading and remedial mathematics strictly.

3. "More direct contact between tutors and day school teachers."

Not implemented. As sessions of day school and the remedial Title I programs do not overlap, teachers cannot be compelled to work shift hours for which they receive no compensation.

---

[4]James G. Ramsay, Program for Institutionalized Children, 1974-75. B/E #09-59636-74, Office of Educational Evaluation.

4. "Availability of varied materials."

Partially implemented. Some funds were used to purchase additional materials in 1975-76. However the absence of large resource centers, even in larger institutions, and the scattering of about 100 small group homes through five city boroughs rendered accessibility to resources anticipating almost any student's diagnosed weaknesses in reading and/or mathematics, impossible of attainment.

B. Evaluator's Recommendations

1. "Given the large deficits observed for most of the institutionalized children in reading and mathematics, and the increases in ability resulting from experience in the program, it is strongly recommended that the program be continued for next year."

Implemented. As shown earlier in Chapter I, services were expanded, reaching 18.3% more students and five institutions at 48 more sites despite a budgetary contraction of $100,000 in the originally planned $1,050,000 program.

2. "The evaluator should choose a diagnostic test or a criterion referenced test to evaluate the program. Such a test would serve the dual function of an evaluation instrument for the evaluator and a diagnostic instrument for the tutors."

Implemented. But said test batteries, described above under Tutors' Recommendations 1, were not chosen by the evaluator, but by the program office working with its area supervisors.

3. "Some provision should be made in next year's program for children who, for any of a variety of reasons, do not receive a full year's experience in the program. Perhaps a special, truncated program could be devised for them in conjunction with the use of a diagnostic or criterion referenced test that would allow tutors to pinpoint specific deficits and to deal with them on a session by session basis."

Implemented. Actually a part of Recommendation 2 above, any diagnostic-prescriptive work is not time based or content limited as it is an open-ended procedure. Since instructors cannot know in advance when a given student may be transferred out of their jurisdiction, so-called "truncated" procedures can neither be anticipated nor desired. In future, prescribed content specific work based on skilled diagnosis should follow the student wherever he/she may be transferred.

4. "Because of the importance given to the use of varied materials, it would seem helpful to establish a collection of resource materials for the tutors. Such a central collection would allow tutors to choose among the widest array of materials possible as well as to provide a place to file successful teacher-made materials that might be of use to other tutors. At present the tutors do have access to a special education resource center maintained by the Board of Education in mid-Manhattan. Perhaps procedures could be worked out with this center to establish a collection of materials specifically designed to meet the needs of institutionalized children."

Not implemented. The central (Manhattan) Special Education Resource Center was not visited or studied as it was outside the funding for this Title I program. Of course, teachers had volition to visit this or other resource centers during their uncompensated time. However, time lag in obtaining requested materials plus the logistics of transporting special materials from one center to nearly 150 locations over a 299 square mile area relegates this recommendation as impractical. Program office recommendations through area supervisors for basic materials at decentralized locations was the recourse followed.

In summary, then, only two of four of the Tutors' Recommendations and three of four Evaluator's Recommendations were implemented.

Chapter IV: SUMMARY OF MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Major Findings

The findings of the data analyses conducted indicated that the program had a positive impact on the target population. The primary evaluation objective of having 70% of the participants demonstrate mastery of at least two instructional objectives which prior to the program they did not master was vitiated by basing the data analyses on only those instructional objectives which had a minimum of 25% of the students attempting them. Thus only 10 of the 41 instructional objectives (24%) in reading and 19 of the 59 instructional objectives (32%) in mathematics were included. However, even with this serious limitation, this objective was achieved by 73% of the students in mathematics. In reading only 54% of the students mastered two or more of the selected instructional objectives.

In examining the extent to which pupils demonstrated mastery of the selected instructional objectives as a result of participation in the program it was found that in reading, from 77.2 to 93.3% of all pupils attempting a selected objective achieved mastery. More than half of the students mastered from 90 to 100% of all the reading objectives attempted. Substantial increases in the mastery of specific reading skills were made by students.

In mathematics, 18 of the 19 selected objectives were mastered by from 75 to 98.1% of the pupils attempting them. One selected mathematics

objective was mastered by 67.7% of the students. More than two thirds of the pupils mastered from 90-100% of the objectives they attempted after instruction. Increases in cognitive achievement of more than 10% were made by all students for 79% of the selected mathematics objectives.

Program implementation was as proposed with the exception of having serviced 399 more pupils than the proposed 2,181. Overall it was considered to have met the needs of the target population as defined in the Project Proposal.

Conclusion

It is therefore concluded that the program was effective in delivering the Title I services--Reading/Mathematics to the target population as defined in the Evaluation Design and Program Proposal.

Recommendations

The following recommendations for strengthening the program were based on the findings and site observations. Two of the recommendations deal with observed problems encountered in the process of Criterion-Referenced testing, using the Base Mathematics system and the Croft Reading system. Three other recommendations relate to the operation of the instructional program.

Recommendations with regard to Criterion-Referenced testing.

1. The New York State Objective Codes in Mathematics are so broad as to represent little congruent validity as to what constitutes mastery of any given objective among so diverse a student population. Even within a given one of the seven testing levels of the "Base" mathematics system,

a numbered Base Objective published and tested for by the Media Research Associates' materials (1973) can reflect upon different parts of a skill having been acquired as among different institutions or as judged by different Title I teachers within an institution, as far as the excessively broad State Codes are concerned.

Therefore, it is recommended that the State Education Department greatly expand its Objective Codes such that each code numbered subskill on each level to which it is applicable will mean essentially the same thing regardless of what student attempts to test for it, or in whatever institution such striving for mastery will occur.

2. The New York State Objective Codes for Reading fail to discriminate various subcomponent skills, as evidenced by the wealth of overlap among multiple State code listings for each given skill represented among the forms and levels of the McGuire-Bumpus Diagnostic Comprehension Tests published by Croft Educational Services, Inc. (1971), as used for the Croft program for Reading Comprehension and Word Analysis skills. Thus it is not readily possible for teachers to classify which New York State objective(s), mastery on a given Croft test page represents.

Therefore, it is recommended the New York State Education Department greatly expand its Objective Codes in Reading so that a specified Code Number and Level is represented for every Croft skill tested which will have the same meaning for any student in any institution so testing for mastery on said skill.

Recommendations with regard to instructional program.

1. An attendance problem is said to exist in some medium sized and larger institutional settings where privately funded child care staffs do not adequately motivate attendance at the after-school hours remedial reading and mathematics sessions of this supplementary program.

Therefore, it is recommended that specific requests go from the Program Office to the institutions concerned to be more cooperative in motivating and assuring attendance of their children at the remedial sessions of the Title I supplementary program.

2. Teaching by objectives in a completely individualized approach has required refining of diagnostic skills in identifying areas of greatest individual student needs. As a result, some Title I teachers newer to the program have requested they receive additional on-job training.

Therefore, it is recommended that specialized small group training workshops for an institution, or individual teacher training sessions for a group home be occasionally conducted by field supervisors, relating to newly approved commercially and locally developed special materials as they are used for improved diagnosis and prescriptive teaching.

3. Under pressures of high staff turnover due to continuing waves of layoffs and transfers, long-term skills (developed and maintained) on the part of some Title I teachers, may be partially lacking, in most efficiently testing students to most accurately pinpoint rapidly seriously deficient areas in reading and mathematics skills; and to prescribe for these students materials from the largest possible resource of what is available, presenting them in the media best suited to students'

learning styles. Toward this end, some exploratory proposals have been advanced for computer management of this process by Title I staff persons from within the program.

Therefore, it is recommended that the Office of Education Evaluation (cooperatively with creatively skilled Title I program teachers involved) explore the possibilities on a pilot scale for the school year 1976-77 of setting up a Computer-Management Instructional System (C.M.I.) for rapid diagnosis of individual student deficiencies in reading/mathematics together with alternative prescriptive strategies for their remediation. Such a C.M.I. system could form a data bank for longitudinal study, monitoring a student's educational progress over a period of years.

In view of the positive effects the program appears to have delivered to institutionalized children by providing remedial services under Title I in the sixth year of its operation, it is strongly recommended that the program be recycled for the 1976-77 school year.

Appendix A: PROGRAM ABSTRACT

PROGRAM FOR INSTITUTIONALIZED CHILDREN

B/E #09-696 36-79
School Year 1975-1976

NYSED
CODES Neglected and Delinquent Reading --608 43-46; 608 53-56
Neglected and Delinquent Mathematics--609 43-46; 609 53-56
(grades 1-12)

Activity Code: Small Group Instruction--720

Objective Codes: Reading 2101-2409 (discontinuous)
Mathematics 1101-1902 (discontinuous)

Program Overview

This Title I Special Education funding of $1,050,156 services 2,580 treatment cases for reading and mathematics in a supplementary after-school program from September 1975 through June 1976 inclusive, at a $453.89 per pupil cost, thus exceeding the 2,200 treatment cases budgeted for in the original Program Proposal and Evaluation Design at a per pupil cost of $509.29.

A diagnostic-prescriptive approach to improve basic reading and mathematics skills of pupils needing remediation to reduce deficits of two or more years was employed by 302 Title I funded part-time after-school public school itinerant teachers in a totally individualized tutorial approach wherein pupils interacted with specially prescribed materials in the process of instruction-treatment.

Instruction took place in the institutional setting where these neglected and/or delinquent children (ages 6 through 18) separated from their genealogical families resided. Optimally, pupils received remediation at least twice weekly for more than 30 minutes per session.

Instrumentation

Measurement by objective featured the use of the McGuire-Bumpus: Croft Reading and the Media Research Associates: Base Mathematics materials, supplemented by a great variety of other instructional and gaming devices. Individual student folders and Class Evaluation Record forms monitored the Criterion Referenced testing continuous open-ended process, consisting of narrowly focused pre- and posttests for each objective, on the level appropriate to a pupil's progress.

Data Findings

The evaluation component of mastery of two or more instructional

objectives was attained in mathematics but not in reading, for selected objectives only. (Basis for objective selection was that over 25% of the students attempted that objective.) Data for the evaluation component of the number of instructional objectives mastered by time intervals of instruction were not accessible.

A high degree of pupil post-instruction mastery of selected objectives in reading (range 77.2 to 93.3%), and in mathematics (range 67.7 to 98.1%) was evidenced. These positive data attest to the effectiveness of the remedial instructional component.

Observational Findings

Twenty-two site visits of 146 locations in the program to 17 of the participating institutions revealed adequacy of both facilities and materials to the remedial tasks undertaken. In general, flexibility of facilities and abundance of materials was greater in larger institutional settings than in smaller group homes visited. Since settings were institutional rather than educational, paradigms for the observational analysis did not exist. However, teacher enthusiasm at these sites visited was universal, student attendance at sessions often exceeded 90%, and sustained motivation ran high. Discrepancies, where found, were minimal and usually related to administrative problems within an institution totally without the framework of the Title I funding.

The program was observed as fully implemented and operational at all sites visited, and appeared to be delivering its services (meeting the needs) of the target population as defined in the original funding proposal.

Conclusion and Recommendations

It was concluded the program was achieving most of the cognitive achievement objectives for which it was designed, and providing a valuable service to the neglected and delinquent children reached.

Recommendations for continuous refunding were accompanied in the report by specific recognition of continuing problems with the process of criterion-referenced test coding procedures. Recommendations for specialized training workshops in diagnostic pinpointing of student deficiencies and for exploring computer management of the instructional process, looking forward to a longitudinally maintained data bank of student progress were detailed in the Final Evaluation Report.

Appendix B: MIR REPORT

(See bound under separate cover.)

APPENDIX C

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM

(attach to MIR, item #30) Function # 09-696 36-79 (Sch. Yr. 1975-76)

PROGRAM FOR INSTITUTIONALIZED CHILDREN

In this table enter all Data Loss information. Between MIR, item #30 and this form, all participants in each activity must be accounted for. The component and activity codes used in completion of item #30 should be used here so that the two tables match. See definitions below table for further instructions.

READING / NEGLECTED

Component Code (Handicap = 00)					Activity Code			(1) Group I.D.	(2) Test Used C-R-T*	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed N	(5) %	(6) Reasons why students were not tested, or if tested, were not analyzed	Number/ Reason
6	0	8	4	3	7	2	0	Gr. 1-3	McGuire-Bumpus: CROFT RDG(71)	172	144	28	16.3	Discharged	18
														Not Tested	10
6	0	8	4	4				Gr. 4-6		430	385	45	10.5	Discharged	33
														Not Tested	12
6	0	8	4	5				Gr. 7-9		465	451	14	3.0	Discharged	9
														Not Tested	5
6	0	8	4	6				Gr. 10-12		462	435	27	5.8	Discharged	13
														Not Tested	14
									Σ	1,529	1,415	114	7.5		

*C-R-T = Criterion-Referenced Testing

(1) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.

(2) Identify the test used and year of publication (MAT-70, SDAT-74, etc.).

(3) Number of participants in the activity.

(4) Number of participants included in the pre and posttest calculations found on item#30.

(5) Number and percent of participants not tested and/or not analyzed on item#30.

(6) Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further documentation is available, please attach to this form. If further space is needed to specify and explain data loss, attach additional pages to this form.

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM

(attach to MIR, item #30) Function #09-696 36-79 (Sch. Yr. 1975-76)

PROGRAM FOR INSTITUTIONALIZED CHILDREN

In this table enter all data loss information. Between MIR, item #30 and this form, all participants in each activity must be accounted for. The component and activity codes used in completion of item #30 should be used here so that the two tables match. See definitions below table for further instructions.

MATHEMATICS / NEGLECTED

Component Code (H'cap = 00)	Activity Code	(1) Group I.D.	(2) Test Used C-R-T	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed N	(5) %	(6) Reasons why students were not tested, or if tested, were not analyzed	Number/ Reason
60943	20	Gr. 1-3	Media Res.Assoc.: BASE MATH(73)	75	61	14	18.7	Discharged	12
								Not Tested	2
60944		Gr. 4-6		149	140	9	6.0	Discharged	4
								Not Tested	5
60945		Gr. 7-9		294	271	23	7.8	Discharged	15
								Not Tested	8
60946		Gr. 10-12		299	286	13	4.3	Discharged	4
								Not Tested	9
			Σ	817	758	59	7.2		

(1) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.
(2) Identify the test used and year of publication (MAT-70, SDAT-74, etc.).
(3) Number of participants in the activity.
(4) Number of participants included in the pre and posttest calculations found on item #30.
(5) Number and percent of participants not tested and/or not analyzed on item #30.
(6) Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further documentation is available, please attach to this form. If further space is needed to specify and explain data loss, attach additional pages to this form.

64

65

56

3/75

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM

(attach to MIR, item #30) Function # 09-696 36-79 (Sch. Yr. 1975-76)

PROGRAM FOR INSTITUTIONALIZED CHILDREN

In this table enter all data loss information. Between MIR, item #30 and this form, all participants in each activity must be accounted for. The component and activity codes used in completion of item #30 should be used here so that the two tables match. See definitions below table for further instructions.

READING / DELINQUENT

Component Code H'cap = 00	Activity Code	(1) Group I.D.	(2) Test Used C-R-T	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed N	(5) %	(6) Reasons why students were not tested, or if tested, were not analyzed	Number/ Reason
60853	720	Gr. 1-3	McGuire-Bumpus: CROFT RDG('71)	0	0	0	0.0	Discharged	0
								Not Tested	0
60854		Gr. 4-6		6	6	0	0.0	Discharged	0
								Not Tested	0
60855		Gr. 7-9		48	43	5	10.4	Discharged	3
								Not Tested	2
60856		Gr. 10-12		103	100	3	2.9	Discharged	0
								Not Tested	3
			Σ	157	149	8	5.1		

(1) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.
(2) Identify the test used and year of publication (MAT-70, SDAT-74, etc.).
(3) Number of participants in the activity.
(4) Number of participants included in the pre and posttest calculations found on item#30.
(5) Number and percent of participants not tested and/or not analyzed on item#30.
(6) Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further documentation is available, please attach to this form. If further space is needed to specify and explain data loss, attach additional pages to this form.

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM

(attach to MIR, item #30) Function # 09-696 36-79 (Sch. Yr. 1975-76)

PROGRAM FOR INSTITUTIONALIZED CHILDREN

In this table enter all Data Loss information. Between MIR, item #30 and this form, all participants in each activity must be accounted for. The component and activity codes used in completion of item #30 should be used here so that the two tables match. See definitions below table for further instructions.

MATHEMATICS / DELINQUENT

Component Code H'cap = 00	Activity Code	(1) Group I.D.	(2) Test Used C-R-T	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed N	(5) %	(6) Reasons why students were not tested, or if tested, were not analyzed	Number/ Reason
60953	720	Gr. 1-3	Media Res Assoc.: BASE MATH('73)	0	0	0	0.0	Discharged	0
								Not Tested	0
60954		Gr. 4-6		4	4	0	0.0	Discharged	0
								Not Tested	0
60955		Gr. 7-9		37	31	6	16.2	Discharged	4
								Not Tested	2
60956		Gr. 10-12		36	36	0	0.0	Discharged	0
								Not Tested	0
			Σ	77	71	6	7.8		

(1) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.
(2) Identify the test used and year of publication (MAT-70, SDAT-74, etc.).
(3) Number of participants in the activity.
(4) Number of participants included in the pre and posttest calculations found on item#30.
(5) Number and percent of participants not tested and/or not analyzed on item#30.
(6) Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further documentation is available, please attach to this form. If further space is needed to specify and explain data loss, attach additional pages to this form.

68

58

69

3/75

APPENDIX D

OBS FORM - PROGR FOR INST CHILDR #09-696 36-

Eval _____

(#09-696 __)

Date __/__/76 | PM

INST _____ | T-I-C (B/E) _____

ADDR _____ | Ed Spv(Inst) _____

_____ | C S W _____

Ph _____

Reg _____ Ages _____ Gr _____ | Days _____ Oth _____

Wk Ave _____ Ave Stay _____ | Hrs _____ Oth _____

FACIL | PROGR

MATER | STUD REC

Croft Rdg

Base Math | TESTING

A-V Aids

Oth | CRT

Ind Instr
-vs-
Smll Gp

ANNOTAT Strgths | Wknesses Recs

70